STREAM ID S-MM17	STREAM NAME UNT to Sinking Creek				
LAT 37.298228 LONG -80.480628	DATE 08/29/2015				
CLIENT MVP	PROJECT NAME MVP				
INVESTIGATORS A.Grech, A. Stott, M. Whitte	n				
FLOW REGIME Perennial — Intermittent Ephemeral —	WATER TYPE TNW — RPW ✓ NRPW —				

			leasurements		Stream Erosion	
		'	k Width: 2.0 ft		NoneModerate	Heavy
		Top of Ban	ŭ		Artificial, Modified or Char	nnelized
		LB <u>1.0</u>	<u>in</u> RB <u>1.0</u>	<u>in</u>	Yes No	
CHANNEL FE	ATURES	•	th: 2.00 in		Dam PresentYes _	∠ No
		Water Widt	h: <u>1.0 ft</u>		_ _	<u> </u>
		-	Mark: <u>3.0 in</u>		Sinuosity Low	Medium High
		Flow Direct	tion: Northwest		Gradient	
						Severe (10 ft/100 ft)
		Water Pres			Proportion of Reach Repre	esented by Stream
		Stream I	r, stream bed dry ped moist		Morphology Types Riffle 70 % Run	%
EL OW		Standing			Pool 30 %	
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ Clear —Slightly	turbidTurbid
		Fast	✓ Moderate		OpaqueStained	
		Slow			Other	
INOR		STRATE CO		_	RGANIC SUBSTRATE COM	
Cubatrata	(Siloulu	add up to 10		,		,
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	10	Detritus	plant materials (CPOM)	10
Cobble		m (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel		1 (0.1"-2.5")	40		(FPOM)	
Sand		nm (gritty)	40			
Silt		0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	ant Surrounding Lan	duco	Indicate the dominant type	(Chaok ana)
		Forest			Trees Shrub	s (Cneck one) S
			astureIndustrial		Grasses Herba	
**********		Agricult	tural 🔽 Resident	tial	Floodplain Width	
WATERSHED FEATURES		Other:			Wide > 30ft <u>✓</u> Moder	rate 15-30ft
		Canopy Co	avor.		Narrow <16ft	
		Partly of		aded		
		Shaded			Wetland Present Yes Wetland ID w-MM10	No
		Indicate th	e dominant type and	d record the d	dominant species present	
AQUATIC VE	GETATION	<u>✓</u> Rooted	emergent	Rooted subme	ergentRooted float	ingFree floating
				Attached alga		

	Crosses farm road; Connects two ponds during 2015 survey.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 10/28/2019. The presence of a stream channel and OHWM was confirmed.

Stream ID S-MM17



Photograph Direction SE

Date: 08/29/2015

Comments: 2015 stream identification.



Photograph Direction SE

Date: 10/28/2019

STREAM ID S-MN22 STREAM NAME UNT					Mill Creek		
CLIENT MVP			PROJECT N	PROJECT NAME MVP			
LAT 37.2971		ONG -80.38655			COUNTY Montgomery		
INVESTIGATO	ORS S Ry	an, K Pulver, H l	Phelan				
WATER TYPE	E RPW	NRPW [FLOW REG Perennial	Intermitte	ent Ephemeral		
		Estimate Mea	asurements		Sinuosity Low V	Medium High	
		Top of Bank V Top of Bank H	Width: 2.0 ft Height:		Gradient Flat ✓ Mo (2 ft/	<u> </u>	
		LB <u>0.6</u> f		π :	Stream Erosion None Moderate	Нески	
		Water Depth:			✓ NoneModerate	_ ,	
CHANNEL FE	ATURES	Water Width:			Artificial, Modified or Chanr Yes ✓ No		
			Water Mark (Width):		Within Roadside Ditch		
		, ,	n Water Mark (Height)): <u>2.0</u> in	Within Roadside Ditch YesNo		
		Flow Direction	n: South	- ,	Culvert PresentYes		
					Culvert Material:		
					Culvert Size: in		
		Water Preser			Proportion of Reach Repres	sented by Stream	
		<u>✓</u> No water, s	stream bed dry		Morphology Types (Only ente	er if water present)	
		Stream bed			Riffle % Run	%	
FLOW		Standing wa		['	Pool %		
CHARACTER	ISTICS	i lowing wa			Turbidity	=	
		Velocity	Mar I		ClearSlightly to	urbidTurbid	
		Fast Slow	_ Moderate				
INOR	CANICSI	_	MPONENTS	0	DRGANIC SUBSTRATE COM	DONENTS	
INUR	MAINIC SI	DESTINATE CO.	•		ACCUMENTATION OF THE STATE OF T	PUNENTS	
INOR		ld add up to 100	0%) 100		does not necessarily add up	p to 100%)	
Substrate Type	(shoul				does not necessarily add up	p to 100%)	
Substrate	(shoul	ld add up to 100	0%) 100 % Composition in	Substrate Type	Characteristic sticks, wood, coarse	p to 100%) % Composition in	
Substrate Type Bedrock Boulder	Dian > 25	Id add up to 100 meter 56 mm (10")	0%) 100 % Composition in	Substrate	does not necessarily add up Characteristic	p to 100%) % Composition in	
Substrate Type Bedrock Boulder Cobble	Dian	meter 56 mm (10") 6 mm (2.5"-10")	9%) 100 % Composition in Sampling Reach	Substrate Type	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic	y to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel	Dial	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5")	% Composition in Sampling Reach	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM)	y to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand	Shoul Dial	neter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty)	% Composition in Sampling Reach	Substrate Type Detritus Muck-Mud	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM)	y to 100%) % Composition in Sampling Area 10	
Substrate Type Bedrock Boulder Cobble Gravel Sand	Shoul Dial	meter 56 mm (10") 6 mm (2.5"-10") 7 mm (0.1"-2.5") 7 -2mm (gritty) 04-0.06 mm	% Composition in Sampling Reach	Substrate Type Detritus	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic	y to 100%) % Composition in Sampling Area	
Substrate Type Bedrock Boulder Cobble Gravel Sand	Shoul Dial	neter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick)	% Composition in Sampling Reach	Substrate Type Detritus Muck-Mud Marl	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments	y to 100%) % Composition in Sampling Area 10	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Shoul Dial	neter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick)	% Composition in Sampling Reach	Substrate Type Detritus Muck-Mud Marl use F	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	y to 100%) % Composition in Sampling Area 10	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt	Shoul Dial	1d add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past	% Composition in Sampling Reach 10 10 5 75 c Surrounding Landsture Industrial	Substrate Type Detritus Muck-Mud Marl use F	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments	y to 100%) % Composition in Sampling Area 10 0	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dian	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant ✓ Forest — Field/Past — Agricultura	% Composition in Sampling Reach 10 10 5 75 t Surrounding Lande Commerciature Industrial Residential	Substrate Type Detritus Muck-Mud Marl use F	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	y to 100%) % Composition in Sampling Area 10 0	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dial	1d add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past	% Composition in Sampling Reach 10 10 5 75 c Surrounding Landsture Industrial	Substrate Type Detritus Muck-Mud Marl use F	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	y to 100%) % Composition in Sampling Area 10 0	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dial	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landu — Commercia — Industrial — Residentia — Other:	Substrate Type Detritus Muck-Mud Marl use F al	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	y to 100%) % Composition in Sampling Area 10 0	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dial	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open	% Composition in Sampling Reach 10 10 5 75 t Surrounding Lande Commercial Industrial Residential Other:	Substrate Type Detritus Muck-Mud Marl use F al	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	y to 100%) % Composition in Sampling Area 10 0	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay	Shoul Dial	meter 56 mm (10") mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landu — Commercia — Industrial — Residentia — Other:	Substrate Type Detritus Muck-Mud Marl use F al	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	y to 100%) % Composition in Sampling Area 10 0	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dial	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landout Commercial Industrial Residential Other: Partly shad	Substrate Type Detritus Muck-Mud Marl use F al	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera Narrow <15ft	y to 100%) % Composition in Sampling Area 10 0 0 ate 15-30ft	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dial	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landout Commercial Industrial Residential Other: Partly shad	Substrate Type Detritus Muck-Mud Marl use F al	characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera	y to 100%) % Composition in Sampling Area 10 0 0 ate 15-30ft	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dial	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landout Commercial Industrial Residential Other: Partly shad	Substrate Type Detritus Muck-Mud Marl use F al	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera Narrow <15ft	y to 100%) % Composition in Sampling Area 10 0 0 ate 15-30ft	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dial	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landout Commercial Industrial Residential Other: Partly shad	Substrate Type Detritus Muck-Mud Marl use F al	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera Narrow <15ft	y to 100%) % Composition in Sampling Area 10 0 0 ate 15-30ft	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dial	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landout Commercial Industrial Residential Other: Partly shad	Substrate Type Detritus Muck-Mud Marl use F al	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera Narrow <15ft	y to 100%) % Composition in Sampling Area 10 0 0 ate 15-30ft	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dial	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landout Commercial Industrial Residential Other: Partly shad	Substrate Type Detritus Muck-Mud Marl use F al	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera Narrow <15ft	y to 100%) % Composition in Sampling Area 10 0 0 ate 15-30ft	
Substrate Type Bedrock Boulder Cobble Gravel Sand Silt Clay WATERSHED FEATURES	Shoul Dial	Id add up to 100 meter 56 mm (10") 5 mm (2.5"-10") mm (0.1"-2.5") -2mm (gritty) 04-0.06 mm 04 mm (slick) Predominant Forest Field/Past Agricultura ROW Canopy Cove Open Shaded	% Composition in Sampling Reach 10 10 10 5 75 Surrounding Landout Commercial Industrial Residential Other: Partly shad	Substrate Type Detritus Muck-Mud Marl use F al	Characteristic sticks, wood, coarse plant materials (CPOM) black, very fine organic (FPOM) grey, shell fragments Floodplain Width Wide > 30ft Modera Narrow <15ft	y to 100%) % Composition in Sampling Area 10 0 0 ate 15-30ft	



Photograph Direction SE

STREAM ID S-RR2	STREAM NAME Greenbriar Branch				
LAT 37.29628872 LONG -80.49408095	DATE 09/09/2015				
CLIENT MVP	PROJECT NAME MVP				
INVESTIGATORS Cook, Foster, Keyser					
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW				

			leasurements		Stream Erosion	Hearry
					<u>✓</u> NoneModerate	Heavy
		Top of Ban	· ·		Artificial, Modified or Char	nnelized
		LB <u>8.0</u>	ft RB <u>1.0</u>	<u>ft</u>	Yes No	
CHANNEL FE	ATURES	Water Dep	th: 6.00 in		Dom Brosent Voc	. No
		Water Widt	h: 7.0 ft		Dam PresentYes	Z NO
		High Water	Mark: <u>1.0 in</u>		Sinuosity 🔽 Low	Medium <u></u> ✓ High
		Flow Direct	tion: North		Gradient	
						Severe
					. , ,	(10 ft/100 ft)
		Water Pres			Proportion of Reach Repre Morphology Types	esented by Stream
		Stream I	r, stream bed dry bed moist		Riffle 25 % Run 40	%
		Standing			Pool 35 %	
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water			
		Valaaitu.			Turbidity <u>✓</u> ClearSlightly	turbidTurbid
		Velocity ✓ Fast	Moderate		Opaque Stained	
		Slow			Other	
INOR			MPONENTS	_	RGANIC SUBSTRATE COM	-
Substrate	(Snould a	add up to 10	% Composition in	Substrate	does not necessarily add u	% Composition in
Type	Diame	ter	Sampling Reach	Type	Characteristic	Sampling Area
Bedrock				Dataitus	sticks, wood, coarse	
Boulder	> 256	mm (10")		Detritus	plant materials (CPOM)	20
Cobble	64-256 m	m (2.5"-10")	30	Muck-Mud	black, very fine organic	40
Gravel	2-64 mm	(0.1"-2.5")	30	WIGGK-WIGG	(FPOM)	10
Sand	0.06-2n	nm (gritty)	40			
Silt	0.004-0	0.06 mm		Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)				
		Predomina Forest	ant Surrounding Lan Commer		Indicate the dominant type Trees Shrub	
			asture Industrial		✓ Grasses — Grido	
		Agricult		tial	<u> </u>	
WATERSHED FEATURES		✓ Other:	Roadside		Floodplain Width Wide > 30ft Model	rate 15-30ft
		Canopy Co	over		✓ Narrow <16ft	
		Partly of		aded		
		Shaded	Open		Wetland Present ✓ Yes Wetland ID W-RRU1	No
		Indicate th	e dominant type and		Iominant species present	
AQUATIC VE	GETATION	Rooted	emergent	Rooted subme	ergentRooted float	ingFree floating
		Floating	g algae	Attached algae	e	
		_				
		This is adja	cent to a portion of th	e wetland map	oped as a section of W -RR0	1, labeled W-RR01b
MA OF CHIL!	TEDE - TE					
MACROINVER OR OTHER	KIEBKATĒS	1				
WILDLIFE OBSERVED/C	THER					
OBSERVATIO	NS AND					
NOTES						
		1				



Photograph Direction North

STREAM ID S-YZ6			STREAM NAME UNT to Greenbriar Branch					
CLIENT MVP			PROJECT NAME MVP					
LAT 37.29644	41 <u>L</u>	ONG -80.49416	3	DATE 10/24/	DATE 10/24/2016 COUNTY Giles			
INVESTIGATO	ORS C. Ar	nsari, S. Therkild	lson, M	. Whitten				
WATER TYPE	RPW [NRPW		FLOW REG Perennial	IME Interm	ittent 🔽	Ephemeral	
CHANNEL FEATURES Estimate Measurer Top of Bank Width:				6.0 ft RB 2.0 ft in ft Mark (Width): Mark (Height)	<u>4.0</u> ft	SinuosityLowMediumHigh GradientFlatModerateSevere (0.5/100 ft) (2 ft/100 ft) Stream ErosionNoneModerateHeavy Artificial, Modified or ChannelizedYesNo Within Roadside DitchYesNo Culvert PresentYesNo Culvert Material: Culvert Size:in		
FLOW CHARACTERISTICS Water PresentNo water, streamStream bed moistStanding waterFlowing water VelocityFastModeSlow				ŕ		Morphology Riffle 40 Pool 5 Turbidity	Types (Only ente % Run 55 % Slightly tu	sented by Stream or if water present) % urbidTurbid
INOR	-	UBSTRATE CO ld add up to 10	_	_			BSTRATE COM cessarily add u	
Substrate Type	Dia	meter		omposition in npling Reach	Substrate Type	te Charac	teristic	% Composition in Sampling Area
Bedrock			0		Detritus		wood, coarse	
Boulder		56 mm (10")	0			plant materials (CPOM	terials (CPOM)	35
Cobble		6 mm (2.5"-10")	5		Muck-Mu		ery fine organic FPOM)	
Gravel		mm (0.1"-2.5")	30			,	i FOW)	
Sand		-2mm (gritty)	25		Mani			
Silt		04-0.06 mm	25		Marl	grey, sr	nell fragments	
Clay < 0.004 mm (slick) Predominant Su ✓ Forest — Field/Pasture — Agricultural — ROW Canopy Cover — Open Shaded		ture	rounding Landuse Commercial Industrial Residential Other: Partly shaded		Floodplain W Wide > 30 V Narrow <	Oft Modera	te 15-30ft	
MAC	ROINVER	TEBRATES/OT	HFR W	/II DLIFF OBS	FRVFD OF	OTHER NOTE	S AND OBSER	RVATIONS
		n an upgradient				· · · · · · · · · · · · · · · · · · ·	TO THE ODGET	



Photograph Direction SE

STREAM ID S-EF62				STREAM NAME UNT to Mill Creek				
CLIENT MVP				PROJECT NAME MVP				
LAT 37.29625	54 L	ONG -80.37504	15 c	DATE 10/10	/2016	C	COUNTY Montgomery	/
INVESTIGATO	ORS D. H	adersbeck, C. K	enyon, A.	Flake				
WATER TYPE	RPW [NRPW	Р	FLOW REG erennial	IME Interm	nittent	Ephemeral]
CHANNEL FEATURES Estimate Measurer Top of Bank Width: Top of Bank Height: LB2.0 ft Water Depth:5.00 Water Width:10.0 Ordinary High Water Ordinary High Water Flow Direction: Sou				1.0 ft RB 2.0 in ft lark (Width):	<u>9.0</u> ft	Sinuosity Low Medium High Gradient Flat Moderate Severe (0.5/100 ft) (2 ft/100 ft) Stream Erosion None Moderate Heavy Artificial, Modified or Channelized Yes No Within Roadside Ditch Yes No Culvert Present Yes No Culvert Material: Culvert Size: in		
FLOW CHARACTER	ISTICS	Water PreserNo water, sStream becStanding vFlowing wa VelocityFastSlow	stream bed d moist vater	Í		Morpho Riffle Pool Turbid	30 %	er if water present)) %
INOR	-	UBSTRATE CO	_	ITS			IC SUBSTRATE COM ot necessarily add u	
Substrate Type	Dia	meter		mposition in ling Reach	Substra Type	1 (Characteristic	% Composition in Sampling Area
Bedrock					Detritus		sticks, wood, coarse	
Boulder		56 mm (10")	15			pla	ant materials (CPOM)	20
Cobble		6 mm (2.5"-10")	20		Muck-Mu	ıd bla	ack, very fine organic	
Gravel		mm (0.1"-2.5")	40				(FPOM)	
Sand		-2mm (gritty)	25					
Silt		04-0.06 mm			Marl	g	rey, shell fragments	
Clay < 0.004 mm (slick) Predominant S Forest Field/Pastur Agricultural ROW Canopy Cover Open Shaded		ture al er	rrounding Landuse Commercial Industrial Residential Other: Partly shaded		Floodplain Width Wide > 30ft Narrow <15ft Moderate 15-30ft			
MAC	ROINVER	TEBRATES/OT	HER WIL	DLIFE OBS	SERVED OI	R OTHER	NOTES AND OBSE	RVATIONS
Collected within		ours of significar	nt rain eve	ent (5"-6").				



Photograph Direction SE

STREAM ID S-MM18	STREAM NAME UNT to Sinking Creek							
LAT 37.296023 LONG -80.481172	DATE 08/29/2015							
CLIENT MVP	PROJECT NAME MVP							
INVESTIGATORS A.Grech, A. Stott, M. Whitten	INVESTIGATORS A.Grech, A. Stott, M. Whitten							
FLOW REGIME Perennial — Intermittent — Ephemeral -	WATER TYPE TNW — RPW — NRPW ✓							

Perennial _	_ Intermitte	nt Ephem	eral 🖊	TNW	RPW —	NRPW 💆		
		Estimate N				Stream Erosion		
		Top of Bank Width: 5.0 ft				<u>✓</u> NoneModerate	Heavy	
		Top of Ban	k Heigh	t:		Artificial, Modified or Char	anolizod	
		LB 4.0	in	RB 4.0	in	Yes ✓ No	inenzeu	
		Water Dep	– th∙ 0.00		_			
CHANNEL FE	ATURES	Water Widt				Dam PresentYes	<u>∕</u> No	
						Sinuosity Low	Medium High	
		High Water				Silidosity v Low	Mediaiii riigii	
		Flow Direc	tion: No	orth		Gradient	_	
						Flat	Severe (10 ft/100 ft)	
		Water Pres	cont			Proportion of Reach Repre	,	
		✓ No wate		n bed dry		Morphology Types	sented by Stream	
		Stream				Riffle % Run	%	
FLOW		Standin	g water			Pool %		
CHARACTER	ISTICS	Flowing	water			Turbidity		
		Velocity				ClearSlightly	turbidTurbid	
		Fast	Mod	derate		OpaqueStained		
		Slow				Other		
INOR	GANIC SUB	STRATE CO	MPONE	NTS	О	RGANIC SUBSTRATE COM	/IPONENTS	
	(should a	add up to 10	0%)		(0	(does not necessarily add up to 100%)		
Substrate Type	Diame	ter		omposition in pling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock					Datritus	sticks, wood, coarse		
Boulder	> 256	mm (10")	10	0	Detritus	plant materials (CPOM)	20	
Cobble	64-256 m	m (2.5"-10")	2	0	NA. ala Na. al	black, very fine organic		
Gravel	2-64 mm	(0.1"-2.5")	3(0	Muck-Mud	(FPOM)		
Sand	0.06-2n	nm (gritty)	4	0				
Silt	0.004-0	0.06 mm			Marl	grey, shell fragments		
Clay	< 0.004 ı	mm (slick)						
		Predomina	ant Suri	rounding Lan	duse	Indicate the dominant type	(Check one)	
		<u>✓</u> Forest		Commer		<u>✓</u> Trees Shrub		
		— Field/P		Industrial		Grasses Herba	iceous	
WATERSHED		Agriculi Other:	lurai	Resident	liai	Floodplain Width		
FEATURES		_ 00101.					rate 15-30ft	
		Canopy Cover				<u>✓</u> Narrow <16ft		
		Partly o		Partly sha	aded	Wetland PresentYes Wetland ID	<u>✓</u> No	
		Indicate th	e domi	nant type and	d record the d	dominant species present		
AQUATIC VE	GETATION		l emerge		Rooted subme		tingFree floating	
		Floatin	g algae		Attached alga	e		
MACROINVER	RTEBRATES							
OR OTHER WILDLIFE								
OBSERVED/C								
NOTES	אוס אוט							

Stream ID S-MM18



Photograph Direction North

Date: 08/29/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: 10/28/2019

STREAM ID S-IJ52			STREAM NA	STREAM NAME UNT to Mill Creek				
CLIENT MVP				PROJECT NAME MVP				
LAT 37.29610		ONG -80.36752		DATE 08/09/2016 COUNTY Montgomery				
INVESTIGATO	ORS E. Fo	ster, S. Ryan, A	. Carrano					
WATER TYPE		NRPW	FLOW REG Perennial		ittent Ephemeral			
CHANNEL FE	ATURES	Top of Bank H LB	Vidth:16.0ft Height: t	ft	Sinuosity Low Medium High Gradient Flat Moderate Severe (0.5/100 ft) (2 ft/100 ft) (10 ft/100 ft) Stream Erosion Moderate Heavy Artificial, Modified or Channelized Yes No Within Roadside Ditch Yes No Culvert Present Yes No Culvert Material: Corrugated Metal Culvert Size: 36 in Proportion of Reach Represented by Stream			
FLOW CHARACTERI	ISTICS	No water, s Stream bec Standing w Flowing wa	stream bed dry d moist vater		Morphology Types (Only enter Riffle 60 % Run 20 Pool 20 % Turbidity Clear Slightly to Other	er if water present) %		
INOR	-	UBSTRATE CO			ORGANIC SUBSTRATE COM (does not necessarily add up			
Substrate Type		meter	% Composition in Sampling Reach	Substrat Type	· 1	% Composition in Sampling Area		
Bedrock		·		Detritus	sticks, wood, coarse			
Boulder		56 mm (10")	30	Dentas	plant materials (CPOM)	5		
Cobble		mm (2.5"-10")	20	Muck-Muc	black, very fine organic			
Gravel		nm (0.1"-2.5")	20	11100	(FPOM)			
Sand	0.06	-2mm (gritty)	20					
Silt		14-0.06 mm	10	Marl	grey, shell fragments			
Clay	< 0.00	04 mm (slick)						
Predominant Surre Forest Field/Pasture Agricultural ROW Canopy Cover Open Shaded			Commercia tureIndustrial alResidentialOther:	al	Floodplain Width Wide > 30ft Narrow <15ft Modera	nte 15-30ft		
		•						
MAC	ROINVER	TEBRATES/OT	HER WILDLIFE OBS	SERVED OR	OTHER NOTES AND OBSER	RVATIONS		
macros and sm	all minnov	vs present.						



Photograph Direction SSE

STREAM ID S-EF65			STREAM N	STREAM NAME UNT to Mill Creek				
CLIENT MVP			PROJECT I	PROJECT NAME MVP				
LAT 37.29574		ONG -80.37592		DATE 10/10/2016 COUNTY Montgomery				
INVESTIGATORS D. Hadersbeck, C. Kenyon, A. Flake								
WATER TYPE	RPW [NRPW	FLOW REC	GIME Interm	ittent			
CHANNEL FE	Top of Bank H LB1.0ft Water Depth: Water Width:_ Ordinary High	Vidth:6.0 ft leight:): <u>4.0</u> ft	Gradient Flat <u>✓</u> Mo	(100 ft) (10 ft/100 ft) Heavy nelizedNo			
FLOW CHARACTER	ISTICS	Stream bed Standing w Flowing wa	tream bed dry I moist vater		Proportion of Reach Repres Morphology Types (Only enter Riffle 20 % Run 60 Pool 20 % Turbidity Clear Other Other	er if water present) %		
INOR	-	UBSTRATE COI			ORGANIC SUBSTRATE COM (does not necessarily add u			
Substrate Type	Dia	meter	% Composition ir Sampling Reach		Characteristic	% Composition in Sampling Area		
Bedrock		(1011)		Detritus	sticks, wood, coarse			
Boulder		56 mm (10")	10		plant materials (CPOM)	30		
Cobble		6 mm (2.5"-10")	30	Muck-Muck	black, very fine organic (FPOM)			
Gravel		mm (0.1"-2.5")	30		(I FOW)			
Sand		-2mm (gritty)	30	Mari	anno and all fragmands			
Silt		04-0.06 mm		Marl	grey, shell fragments			
	WATERSHED Field/Pasture Agricultural			luse ial al	Floodplain Width Wide > 30ft Narrow <15ft	1 ate 15-30ft		
		. —						
14.4.0		TERDATESIOT	HED WILDLIEE OR	SEDVED OF	OTHER NOTES AND OBOSE	OVATIONS		
	erved in th	e lower potions o			OTHER NOTES AND OBSER			



Photograph Direction East

STREAM ID S-G36	STREAM NAME North Fork Roanoke River
LAT 37.265433 LONG -80.318763	DATE 04/08/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A. Rodrian, s. Kelly, G. Stev	ens
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW_✓ NRPW

Perennial P	<u> </u>	nt Ephem	eral TNW	RPW <u> </u>	NRPW	
	1		_			
		Estimate Measurements			Stream Erosion None Moderate Heavy	
		Top of Bank Width: 20.0 ft			None _v woderate	rieavy
		Top of Ban	ŭ		Artificial, Modified or Char	nnelized
		LB <u>5.0</u>		<u>n</u>	Yes _ <u>✔</u> No	
CHANNEL FE	ATURES	·	th: 1.00 ft		Dam PresentYes _	✓ No
			h: 18.0 ft			
		High Water	Mark: <u>15.0 in</u>		Sinuosity Low	Medium High
		Flow Direc	tion: West		Gradient	
						Severe (10 ft/100 ft)
		Water Pres	cont		Proportion of Reach Repre	,
			r, stream bed dry		Morphology Types	-
		Stream	bed moist		Riffle 40 % Run 50	%
FLOW		Standin	•		Pool 10 %	
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ Clear — Slightly	
		· · · · · · · · · · · · · · · · · · ·	Moderate		OpaqueStained	
		Slow			Other	
INOR		STRATE CO add up to 10		_	RGANIC SUBSTRATE COM does not necessarily add u	
Substrate		-	% Composition in	Substrate		% Composition in
Туре	Diame	ter	Sampling Reach	Type		Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	_
Boulder		mm (10")	30		plant materials (CPOM)	5
Cobble		m (2.5"-10")	50	Muck-Mud	black, very fine organic	0
Gravel		1 (0.1"-2.5")	10		(FPOM)	0
Sand		nm (gritty)	5			0
Silt		0.06 mm	_	Marl	grey, shell fragments	
Clay	< 0.004 1	mm (slick)	5	4	In all a set a file and a section and to see	(2)
		Forest	ant Surrounding Lan Commer		Indicate the dominant type Trees Shrub	
		Field/P			✓ Grasses Herba	
WATEROUER		Agricultural Residential		tial	Floodplain Width	
WATERSHED FEATURES		Other:				rate 15-30ft
		Canopy CoverPartly openPartly shaded			✓ Narrow <16ft	
				aded	Wetland Present Yes	√ No
		ShadedOpen			Wetland ID	<u>✓</u> No
		Indicate th	e dominant type and	d record the d	lominant species present	
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating				
Floating algaeAttached algae						
		•				
MACROINVER OR OTHER	RTEBRATES	· [
WILDLIFE OBSERVED/C	THER					
OBSERVATIO						
NOTES						
		1				



Photograph Direction West

STREAM ID S-G38	STREAM NAME UNT to North Fork Roanoke River
LAT 37.267107 LONG -80.312826	DATE 04/04/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A. Rodrian, s. Kelly, G. Stev	ens
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW ✓

			leasurements "		Stream Erosion	
		· '	k Width: 3.0 ft		NoneModerate	<u>▶</u> Heavy
		Top of Ban	k Height:		Artificial, Modified or Chan	nelized
		LB <u>8.0</u>	<u>in RB 8.0 i</u>	<u>in</u>	Yes _ <u>✔</u> No	
CHANNEL FE	ATURES	Water Dept	th: 0.00 in		Dam PresentYes	. No
		Water Widt	h: <u>0.0 ft</u>		Dani Present res _	NO
		High Water	Mark: <u>2.0 in</u>		Sinuosity 👱 Low	Medium High
		Flow Direct	tion: Northeast		Gradient	
					✓ Flat Moderate	Severe
					, ,	(10 ft/100 ft)
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	sented by Stream
		Stream			Riffle % Run	%
E1 0)4/		Standing			Pool %	
FLOW CHARACTER	ISTICS	Flowing	water		To code i alida a	
		Valacitu			Turbidity ClearSlightly to	turbidTurbid
		Velocity Fast	Moderate		OpaqueStained	
		Slow			Other Dry channel	
INOR	GANIC SUB	STRATE CO	MPONENTS	ORGANIC SUBSTRATE COMPONENTS		IPONENTS
	(should	add up to 10	0%)	(0	does not necessarily add up	o to 100%)
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			0	Detritus	sticks, wood, coarse	
Boulder	> 256	mm (10")	55	Dountdo	plant materials (CPOM)	10
Cobble	64-256 m	ım (2.5"-10")	30	Muck-Mud	black, very fine organic	0
Gravel		า (0.1"-2.5")	10		(FPOM)	0
Sand		nm (gritty)	0			0
Silt		0.06 mm	0	Marl	grey, shell fragments	
Clay	< 0.004	mm (slick)	0			
		Predomina Forest	ant Surrounding Lan Commer		Indicate the dominant type Trees Shrub	
		Field/Pa			✓ Grasses — Herba	
		Agricult			<u> </u>	
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft Moder	ate 15-30ft
TEATORES					Narrow <16ft	ate 15-50it
		Canopy Co		aded	_	
		Shaded			Wetland Present _v_Yes	No
		Indicate th	o dominant tune and	d record the	Wetland IDW-G4 dominant species present	
AQUATIC VE	GETATION		e dominant type and emergent	Rooted subme	ergent Rooted float	ing Free floating
				Attached alga		<u> </u>

	West side is pasture east side is forest during 2015 survey.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	Information listed on this form represents the data collected in 2015. The stream was revisited on 10/29/2019. The presence of a stream channel and OHWM was confirmed.



Photograph Direction NE

Date: 04/04/2015

Comments: 2015 stream identification.



Photograph Direction NNE

Date: 10/29/2019

STREAM ID S-G40	STREAM NAME UNT to North Fork Roanoke River
LAT 37.263259 LONG -80.306132	DATE 04/08/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A. Rodrian, s. Kelly, G. Stev	ens
FLOW REGIME	WATER TYPE
Perennial / Intermittent _ Ephemeral _	TNW RPW NRPW

Perennial -	_ Intermitte	nt Ephem	eral TNW	RPW <u>→</u>	NRPW	
			_			
		Estimate Measurements Top of Bank Width: 3.0 ft		Stream Erosion None ✓ Moderate	Незуу	
					NoneNoderate	rieavy
		Top of Ban	· ·		Artificial, Modified or Char	nnelized
		LB <u>6.0</u>		<u>in</u> .	Yes No	
CHANNEL FE	ATURES		th: 4.00 in		Dam Present Yes	✓ No
		Water Widt	h: 3.0 ft			
		High Water	Mark: <u>6.0 in</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: N		Gradient	
					Flat	
		Water Pres	- ont		Proportion of Reach Repre	
			r, stream bed dry		Morphology Types	ssented by Stream
		Stream I	ped moist		Riffle 60 % Run 20	%
FLOW		Standing	•		Pool 20 %	
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity	
		Velocity			✓ Clear — Slightly	turbidTurbid
			Moderate		OpaqueStained	
		Slow		ı	Other	
INOR		STRATE CO add up to 10	MPONENTS 0%)	_	RGANIC SUBSTRATE COM does not necessarily add u	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition ir Sampling Area
Bedrock			30	Detritus	sticks, wood, coarse	
Boulder	> 256 ı	mm (10")	30	Delilius	plant materials (CPOM)	65
Cobble	64-256 m	m (2.5"-10")	30	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	5	WIGON-WIGG	(FPOM)	0
Sand	0.06-2n	nm (gritty)	5			0
Silt	0.004-0).06 mm	0	Marl	grey, shell fragments	0
Clay	< 0.004 r	mm (slick)	0			
			Predominant Surrounding Landuse ✓ Forest Commercial Indicate the dominant type (Check on V Trees Shrubs			
		✓ Forest Commerc Field/Pasture Industrial Agricultural Residenti			Grasses Herba	
l				tial	_	
WATERSHED FEATURES		Other:			Floodplain Width Wide > 30ft Moderate 15-30ft	
		Canopy CoverPartly open ✓ Partly shaded			✓ Narrow <16ft	
				aded	d	
		ShadedOpen			Wetland PresentYes Wetland ID	<u>v</u> No
		Indicate th	e dominant type and	d record the d	lominant species present	
AQUATIC VE	GETATION	Rooted emergentRooted submergentRooted floatingFree floating				
		Floatin	g algae	Attached algae	e	
		1				
		Flows North	h			
MACROINVER OR OTHER	KIEBKATES					
WILDLIFE OBSERVED/C	THER					
OBSERVATIO						
NOTES						



Photograph Direction South

Date: 04/08/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: 10/29/2019

STREAM ID S-PP23	STREAM NAME North Fork Roanoke River			
LAT 37.2649751 LONG -80.30689524	DATE 10/20/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS D. Hadersbeck, S. Therkilds	on, D. McCollough			
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW <u>✓</u>			

i elelililai =	intermitte	пі— прпепі	<u> </u>	10.77	MICE W		
		Estimate N	Measurements k Width: 3 ft		Stream Erosion None Moderate	Heavy	
		Top of Bank Height:			·		
CHANNEL FEATURES		LB _0.5	· ·	ft	Artificial, Modified or Char	nelized	
			th: 0.00 in	_	YesNo Dam PresentYes	<u>~</u> No	
			Mark: 6.0 in		Sinuosity <u>v</u> Low	Medium <u>v</u> High	
		ľ	tion: Southwest		Gradient		
					Flat Moderate _	<u>✓</u> Severe	
					. , ,	(10 ft/100 ft)	
			sent r, stream bed dry bed moist		Proportion of Reach Representation Morphology Types Riffle % Run	sented by Stream %	
FLOW		Standing	•		Pool %		
CHARACTER	ISTICS	Flowing	water		Turbidity		
		Velocity			ClearSlightly	turbidTurbid	
		Fast . Slow	Moderate		OpaqueStained Other		
INORGANIC SUBSTRATE COMPONENTS			MDONENTS	0	PRGANIC SUBSTRATE CON	IDONENTS	
INOIN		add up to 100		(does not necessarily add up to 100%)			
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder		mm (10")	25	Dountao	plant materials (CPOM)	70	
Cobble		m (2.5"-10")	10	Muck-Mud	black, very fine organic		
Gravel		n (0.1"-2.5")	25		(FPOM)		
Sand Silt		nm (gritty) 0.06 mm	30	Marl	arov shall fragments		
Clay		mm (slick)	10	iviaii	grey, shell fragments		
Olay	0.001	· ' '	ant Surrounding Lan	duse	Indicate the dominant type	(Check one)	
		<u></u> Forest	Commer	cial	<u>✓</u> Trees Shrub	s	
		— Field/Pa			Grasses Herba	ceous	
WATERSHED FEATURES		Agricultural Residential Other:		liai	Floodplain Width Wide > 30ft Model	rate 15-30ft	
		Canopy Co	over		✓ Narrow <16ft		
l —		Partly o	· — ·	aded	Wetland PresentYes Wetland ID	<u>✓</u> No	
AQUATIC VEGETATIONRoot		Rooted	emergent	Rooted subm	_	ingFree floating	
		Floating	g aigae	Attached alga	le		
		Information	listed on this form re	araganta tha a	data collected in 2015. The at-	room was revisited	
		on 10/20/20	nsieu on ins lonn re 110. The presence of	presents the C	data collected in 2015. The sti	ediii was ievisiled	

	Information listed on this form represents the data collected in 2015. The stream was revisited on 10/29/2019. The presence of a stream channel and OHWM was confirmed.
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES	

Stream ID S-PP23



Photograph Direction NE

Date: 10/20/2015

Comments: 2015 stream identification.



Photograph Direction NE

Date: 10/29/2019

STREAM ID S-G39	STREAM NAME UNT to North Fork Roanoke River
LAT 37.264783 LONG -80.308484	DATE 04/08/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A. Rodrian, s. Kelly, G. Stev	ens
FLOW REGIME	WATER TYPE
Perennial / Intermittent _ Ephemeral _	TNW RPW NRPW

Perenniai -	_ memilie	nt <u> </u>	erai INVV	RPW <u> </u>	NRPW	
		F-4'4- B			Ota	
				Stream Erosion ✓ None Moderate	Heavy	
		Top of Bank Height:			woderate	ricavy
		· '	ŭ	. .	Artificial, Modified or Char	nnelized
		LB <u>10.0</u>		<u>ft</u>	Yes No	
CHANNEL FE	ATURES	-	th: <u>6.00 in</u> h: 5.0 ft		Dam PresentYes _	∠ No
			:n: :Mark:_9.0 in		Sinuosity <u>v</u> Low	Medium High
			***************************************			<u> </u>
		Flow Direc	uon. <u>IV</u>		Gradient <u>✓</u> Flat Moderate _	Severe
						(10 ft/100 ft)
		Water Pres	sent		Proportion of Reach Repre	esented by Stream
			r, stream bed dry		Morphology Types	2
			bed moist		Riffle 40 % Run 30 Pool 30 %	%
FLOW		Standing	-		Pool 30 %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			✓ Clear — Slightly	
		<u>✓</u> Fast	Moderate		OpaqueStained	
		Slow			Other	
INOR		STRATE CO add up to 10			RGANIC SUBSTRATE COM does not necessarily add u	
Substrate Type	Diame	eter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			30		sticks, wood, coarse	1 0
Boulder	> 256	mm (10")	20	Detritus	plant materials (CPOM)	70
Cobble	64-256 m	ım (2.5"-10")	30	Muck-Mud	black, very fine organic	0
Gravel	2-64 mm	า (0.1"-2.5")	10	WIGOK-WIGG	(FPOM)	0
Sand	0.06-2r	nm (gritty)	10			0
Silt	0.004-0	0.06 mm	0	Marl	grey, shell fragments	0
Clay	< 0.004	mm (slick)	0			
			ant Surrounding Lar		Indicate the dominant type	
		Field/P	Commer asture Industria		✓ Trees Shrub Grasses Herba	s iceous
		— Agricul			Grassesnerba	iceous
WATERSHED FEATURES		Other:		iiui	Floodplain Width	rate 15-30ft
PEATURES		Canopy Cover			Wide > 30ft Mode ✓ Narrow <16ft Mode	rate 15-301t
				adod	- Nariow Flore	
		Partly openPartly shaded Shaded Open		Wetland PresentYes	<u>✓</u> No	
					Wetland ID	
AQUATIC VE	SETATION			d record the o	dominant species present	ting Free floating
AQUATIC VE	JETATION	Floatin	_	Attached alga	_	rree lloating
MACROINVERTEBRATES OR OTHER						
WILDLIFE OBSERVED/C						
OBSERVATION NOTES	NS AND					

Stream ID S-G39



Photograph Direction North

Date: 04/08/2015

Comments: 2015 stream identification.



Photograph Direction North

Date: 10/29/2019

STREAM ID S-MM14	STREAM NAME UNT to Flatwoods Branch			
LAT 37.258803 LONG -80.293278	DATE 08/26/2015			
CLIENT MVP	PROJECT NAME MVP			
INVESTIGATORS A.Grech, A. Stott, M. Whitte	n			
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW NRPW			

Perennial _	_ Intermitte	nt Ephem	eral 🖊	TNW	RPW —	NRPW 💆	
	Estimate Measurements				Stream Erosion		
		Top of Ban	k Width:	7.0 ft		<u>✓ None</u> Moderate	Heavy
		Top of Bank Height:				Artificial, Modified or Char	nnolizad
CHANNEL FEATURES		LB 3.0	ft	RB 2.0	ft	Yes _✓ No	menzeu
		Water Dep	th: 0.00	in			
CHANNEL FE	ATURES	Water Widt				Dam PresentYes _	<u>∕</u> No
		High Water				Sinuosity Low	Medium High
		_				<u> </u>	
		Flow Direct	tion: So	ulleasi		Gradient	4.0
							✓ Severe (10 ft/100 ft)
		Water Pres	sent			Proportion of Reach Repre	
		✓ No wate		bed dry		Morphology Types	-
		Stream I		st		Riffle % Run	%
FLOW		Standing	_			Pool %	
CHARACTER	ISTICS	Flowing	water			Turbidity	
		Velocity				ClearSlightly	
		Fast	Mod	lerate		OpaqueStained	
		Slow				Other	
INOR		STRATE CO	_	NTS	_	RGANIC SUBSTRATE COM	
	(should a	add up to 10			,	does not necessarily add u	'
Substrate Type	Diame	ter		mposition in pling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock					Detritus	sticks, wood, coarse	
Boulder		mm (10")	5		Dounted	plant materials (CPOM)	20
Cobble	64-256 m	m (2.5"-10")	10)	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	1()	Maok Maa	(FPOM)	
Sand	0.06-2n	nm (gritty)	30				
Silt	0.004-0	0.06 mm	25	5	Marl	grey, shell fragments	
Clay	< 0.004 i	mm (slick)	20				
			ant Surr	ounding Lan		Indicate the dominant type	
		<u>✓</u> Forest	astura	Commer Industrial		✓ Trees Shrub Grasses Herba	os Iceous
		Field/PastureIndustrial Agricultural Residen					100000
WATERSHED		Other:				Floodplain Width Wide > 30ft Mode	15 20 5
FEATURES						Narrow <16ft	rate 15-30ft
		Canopy Co		✓ Partly sh			
		<u>✓</u> Shaded		Open Open	aucu	Wetland PresentYes Wetland ID	<u>✓</u> No
AQUATIC VEGETATION		Indicate the dominant type and record the dominant species present					
			l emerge	_	Rooted subme	<u> </u>	tingFree floating
		Floating	g algae		Attached alga	<u>e</u>	
MACROINVERTEBRATES OR OTHER		Recently cl	ear cut				
		1					
WILDLIFE OBSERVED/C	THER						
OBSERVATIO							
NOTES							
ī		1					

Stream ID S-MM14



Photograph Direction NW

Date: 08/26/2015

Comments: 2015 stream identification.



Photograph Direction NNW

Date: 10/30/2019

STREAM ID S-MM15	STREAM NAME UNT to Flatwoods Branch
LAT 37.258539 LONG -80.296368	DATE 08/26/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS A.Grech, A. Stott, M. Whitte	n
FLOW REGIME Perennial Intermittent Ephemeral	WATER TYPE TNW RPW ✓ NRPW

Perenniai –	_ intermitte	nt <u> — Epnem</u>	erai rivvv	RPW —	NRPW —	
			/leasurements k Width: 6.0 ft		Stream Erosion _v_NoneModerateHeavy	
		·	K Widii.		Nonewoderate	пеачу
		Top of Ban	ŭ		Artificial, Modified or Char	nnelized
		LB <u>3.0</u>	ft RB <u>2.0</u>	<u>ft</u>	Yes _ <u>✔</u> No	
CHANNEL FE	ATURES	Water Dep	th: 0.00 in		Dam PresentYes	✓ No
		Water Widt	h: 0.0 ft			<u> </u>
		High Water	Mark: <u>3.0 in</u>		Sinuosity <u>v</u> Low	Medium High
		Flow Direct	tion: South		Gradient	
					FlatModerate _	
		\\/-4 D			(0.5/100 ft (2 ft/100 ft)	· · · · · · · · · · · · · · · · · · ·
		Water Pres ✓ No wate	senτ r, stream bed dry		Proportion of Reach Representation Morphology Types	esented by Stream
			ped moist		Riffle % Run	%
FLOW		✓ Standing			Pool 20 %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	
		Fast	Moderate		OpaqueStained	
		Slow			Other	
INOR		STRATE CO add up to 10	MPONENTS 0%)	_	RGANIC SUBSTRATE COM does not necessarily add u	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Dotrituo	sticks, wood, coarse	
Boulder	> 256 ı	mm (10")	20	Detritus	plant materials (CPOM)	40
Cobble	64-256 m	m (2.5"-10")	10	Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	10	WIGCK-WIGG	(FPOM)	
Sand	0.06-2n	nm (gritty)	40			
Silt	0.004-0	0.06 mm	20	Marl	grey, shell fragments	
Clay	< 0.004 r	mm (slick)				
			ant Surrounding Lar		Indicate the dominant type	
		✓ Forest Field/Pa	Commer asture Industria		✓ Trees Shrub Grasses Herba	os aceous
		— Agricult		tial	_	100000
WATERSHED FEATURES		Other:	_		Floodplain Width Wide > 30ft Mode	rate 15-30ft
FEATORES					Narrow <16ft	rate 15-301t
		Canopy Co Partly o		aded	_	
		✓ Shaded			Wetland PresentYes Wetland ID	<u>✓</u> No
		Indicate th	e dominant tuno an			
AQUATIC VE	GETATION	Indicate the dominant type and record the dominant species present Rooted emergent Rooted submergent Rooted floating Free floating				
		Floatin	g algae	Attached algae		<u> </u>
MACROINVERTEBRATES OR OTHER WILDLIFE		Ground wa	ter pools upstream at	one inch		
OBSERVED/C						
NOTES						

Stream ID S-MM15



Photograph Direction North

Date: 08/26/2015

Comments: 2015 stream identification.



Photograph Direction South

Date: 10/30/2019

STREAM NAME UNT to Flatwoods Branch
DATE 08/26/2015
PROJECT NAME MVP
1
WATER TYPE TNW RPW NRPW

Perennial _	Intermitte	nt Ephem	eral Y TNW	RPW —	NRPW 🖍	
			Measurements		Stream Erosion	
		Top of Ban	k Width: 8.0 ft		<u>✓</u> NoneModerate	Heavy
		Top of Ban	k Height:		Artificial, Modified or Char	nalizad
		LB 3.0	in RB <u>3.0</u>	in	Yes _✓ No	menzea
OLIANINEL EE	ATUREO	Water Dep	th: 0.00 in		_	
CHANNEL FE	ATURES	Water Widt			Dam PresentYes _	<u>∕</u> No
			Mark: 2.0 in		Sinuosity Low	Medium High
		•	·		<u> </u>	
		Flow Direct	tion: South		Gradient	0
					Flat	Severe (10 ft/100 ft)
		Water Pres	sent		Proportion of Reach Repre	,
			r, stream bed dry		Morphology Types	oconica by circum
		Stream I	oed moist		Riffle % Run	%
FLOW		Standing			Pool %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	turbidTurbid
			Moderate		OpaqueStained	
		Slow			Other	
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE CON	/IPONENTS
	(should a	add up to 10	· ·	,	does not necessarily add u	·
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Dotritus	sticks, wood, coarse	
Boulder	> 256	mm (10")		Detritus	plant materials (CPOM)	10
Cobble	64-256 m	m (2.5"-10")	10	Muck Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm	ı (0.1"-2.5")	40	Muck-Mud		
Sand	0.06-2n	nm (gritty)	30	Marl		
Silt	0.004-0	0.06 mm	20		grey, shell fragments	
Clay	< 0.004 ı	mm (slick)				
			ant Surrounding Lar		Indicate the dominant type	
		<u>✓</u> Forest	Commer		<u>✓</u> TreesShrub	
		— Field/Pa	_		Grasses Herba	iceous
WATERSHED		Other:		uai	Floodplain Width	
FEATURES		<u>-</u> Other.	roweiline			rate 15-30ft
		Canopy Co			✓ Narrow <16ft	
		<u>✓</u> Partly of Shaded	<u> </u>	aded	Wetland PresentYesV No Wetland ID	
		_Snaded	Open			
					dominant species present	
AQUATIC VE	GETATION		_	Rooted subme		tingFree floating
		Floating	g algae	Attached alga	e	
MACROINVERTEBRATES OR OTHER						
		5				
WILDLIFE	THER					
OBSERVED/C OBSERVATION						
NOTES						

Stream ID S-MM11



Photograph Direction North

Date: 08/26/2015

Comments: 2015 stream identification.



Photograph Direction SSW

Date: 11/01/2019

STREAM ID S-F15	STREAM NAME UNT to Flatwoods Branch
LAT 37.258327 LONG -80.286231	DATE 04/08/2015
CLIENT MVP	PROJECT NAME MVP
INVESTIGATORS E. Stromhaier, D. McCulloug	gh, A. Flake
FLOW REGIME Perennial Intermittent Lephemeral	WATER TYPE TNW RPW_✓ NRPW

Perenniai —		nt <u> — Epnem</u>	erai INVV	RPW —	NRPW		
		F-414- 1			Ota		
			/leasurements k Width: <u>6.0 ft</u>		Stream Erosion None Moderate	None _v Moderate Heavy	
		-			Woderate		
		Top of Ban	· ·		Artificial, Modified or Char	nnelized	
		LB <u>3.0</u>		<u>ft</u>	Yes No		
CHANNEL FE	ATURES		th: 4.00 in		Dam PresentYes _	✓ No	
		Water Widt	h: 3.0 ft				
		High Water	Mark: <u>1.0 ft</u>		Sinuosity Low	Medium High	
		Flow Direct	tion: S		Gradient		
						Severe	
					,	(10 ft/100 ft)	
		Water Pres	sent r, stream bed dry		Proportion of Reach Representation Morphology Types	esented by Stream	
			ped moist		Riffle 50 % Run 50	%	
EL 014/		Standing			Pool %		
FLOW CHARACTER	ISTICS	<u>✓</u> Flowing	water		Total Lille		
		Valacity			Turbidity <u>✓</u> ClearSlightly	turbidTurbid	
		Velocity Fast	✓ Moderate		OpaqueStained		
		✓ Slow			Other		
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE COM	// IPONENTS	
	(should a	add up to 10	0%)	(0	does not necessarily add u	p to 100%)	
Substrate Type	Diame	Diameter % Compo		Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder	> 256 ı	mm (10")		Delilius	plant materials (CPOM)	15	
Cobble	64-256 m	m (2.5"-10")		Muck-Mud	black, very fine organic		
Gravel	2-64 mm	(0.1"-2.5")	35	Wack-Waa	(FPOM)		
Sand	0.06-2n	nm (gritty)	35				
Silt	0.004-0	0.06 mm	15	Marl	grey, shell fragments		
Clay	< 0.004 r	mm (slick)	15				
			ant Surrounding Lan		Indicate the dominant type		
		✓ Forest Field/Pa	Commer asture Industrial		✓ Trees Shrub Grasses Herba		
		— Agricult			Grassesrierba	iceous	
WATERSHED		Other:		Floodplain Width			
FEATURES		_			Wide > 30ftMode	rate 15-30ft	
		Canopy Co	over				
		<u>✓</u> Partly of Shaded	<u> </u>	aueu	Wetland Present _v_Yes	No	
					Wetland ID W-F9		
A CULATION (F	DETATION			d record the o	dominant species present	ting Fron floating	
AQUATIC VE	EIAIION	Floating	· —	Attached alga	<u> </u>	tingFree floating	
				rataonoa arga			
		Norrow DC	S areas within the cha	annol			
		INATION FO	o areas within the cha	aririer.			
MACROINVERTEBRATES OR OTHER							
WILDLIFE OBSERVED/C							
OBSERVATIO NOTES	NS AND						



Photograph Direction NNW

Date: 04/08/2015

Comments: 2015 stream identification.



Photograph Direction SSE

Date: 11/01/2019

REAM NAME UNT to Flatwoods Branch
NTE 08/26/2015
OJECT NAME MVP
ATER TYPE TNW RPW NRPW

Perennial –	_ Intermitte	nt <u> </u>	eral TNW	RPW —	NRPW	
			/leasurements k Width: <u>5.0 ft</u>		Stream Erosion ✓ None Moderate	Незуу
					V Nonewoderate	rieavy
		Top of Ban	· ·		Artificial, Modified or Char	nnelized
				<u>n</u>	Yes _ <u>✓</u> No	
CHANNEL FE	ATURES		th: 0.00 in		Dam PresentYes _	✓ No
		Water Widt	h: <u>0.0 ft</u>		_ _	
		High Water	Mark: <u>3.0 in</u>		Sinuosity <u>~</u> Low	Medium High
		Flow Direct	tion: South		Gradient	
					Flat Moderate (2 ft/100 ft)	✓ Severe (10 ft/100 ft)
		Water Pres	sent		Proportion of Reach Repre	•
			r, stream bed dry		Morphology Types	•
			oed moist		Riffle % Run	%
FLOW		Standing	•		Pool %	
CHARACTER	ISTICS	Flowing	water		Turbidity	
		Velocity			ClearSlightly	
		· 	Moderate		OpaqueStainedOther	
		Slow				
INOR		STRATE CO add up to 10	MPONENTS 0%)	_	RGANIC SUBSTRATE COM does not necessarily add u	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock				Detritus	sticks, wood, coarse	
Boulder		mm (10")	5	Detritus	plant materials (CPOM)	10
Cobble	64-256 m	m (2.5"-10")		Muck-Mud	black, very fine organic	
Gravel	2-64 mm	(0.1"-2.5")	10		(FPOM)	
Sand		nm (gritty)	40			
Silt		0.06 mm	25	Marl	grey, shell fragments	
Clay	< 0.004 r	mm (slick)	20	_		
		Predomina ✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub	
		Field/P			Grasses Herba	
MATEROUER		Agricult	tural Resident	tial	Floodplain Width	
WATERSHED FEATURES		Other:		Wide > 30ft Moderate 15		rate 15-30ft
		Canopy Co	over		✓ Narrow <16ft	
		Partly o	penPartly sh	aded Wetland Bresent Yes		√ No
		<u>✓</u> Shaded Open			Wetland PresentYes Wetland ID	<u>✓</u> No
		Indicate th	e dominant type and	d record the d	dominant species present	
AQUATIC VE	GETATION		· —	Rooted subme	_	tingFree floating
		Floating	g algae	Attached algae	<u> </u>	
MACDOINVE	OTEDDATES					
MACROINVER OR OTHER	VIEDKA IES					
WILDLIFE OBSERVED/C	THER					
OBSERVATION NOTES						

Stream ID S-MM13



Photograph Direction NW

Date: 08/26/2015

Comments: 2015 stream identification.



Photograph Direction SSE

Date: 11/01/2019

STREAM ID S-F16A/S-F16B	STREAM NAME UNT to Flatwoods Branch				
LAT 37.258071 LONG -80.284659	DATE 04/08/2015				
CLIENT MVP	PROJECT NAME MVP				
INVESTIGATORS E. Stromhaier, D. McCulloug	gh, A. Flake				
FLOW REGIME	WATER TYPE				
Perennial Intermittent Ephemeral	TNW RPW NRPW				

Perennial_	_ Intermitte	ntEphem	eral ✓ TNW	RPW	NRPW_		
		Estimate Measurements Top of Bank Width: 3.0 ft			Stream ErosionNone ✓ Moderate	Ноэм	
					NoneNoderate	rieavy	
		Top of Ban	· ·	. .	Artificial, Modified or Char	nnelized	
		LB <u>1.0</u>	_	<u>ft</u>	Yes No		
CHANNEL FE	ATURES	Water Dep	th: 0.00 in		Dam Present Yes	∠ No	
		Water Widt	h: 0.0 ft				
		High Water	Mark: <u>6.0 in</u>		Sinuosity <u>v</u> Low	Medium High	
		Flow Direct	tion: W		Gradient		
						Severe	
					` ` ` `	(10 ft/100 ft)	
		Water Pres	sent r, stream bed dry		Proportion of Reach Repre Morphology Types	esented by Stream	
		✓ Stream I			Riffle % Run	%	
EL OW		Standing	g water		Pool %		
FLOW CHARACTER	ISTICS	Flowing	water		Turbidity		
		Velocity			ClearSlightly	turbidTurbid	
			Moderate		OpaqueStained		
		Slow			Other		
INOR	GANIC SUB	STRATE CO	MPONENTS	0	RGANIC SUBSTRATE CON	IPONENTS	
	(should a	add up to 10		,	does not necessarily add u	p to 100%)	
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritus	sticks, wood, coarse		
Boulder	> 256 ı	mm (10")		Detrituo	plant materials (CPOM)	100	
Cobble	64-256 m	m (2.5"-10")		Muck-Mud	black, very fine organic		
Gravel	2-64 mm	(0.1"-2.5")			(FPOM)		
Sand		nm (gritty)	35				
Silt		0.06 mm	35	Marl	grey, shell fragments		
Clay	< 0.004 r	mm (slick)	30				
		Predomina ✓ Forest	ant Surrounding Lan Commer		Indicate the dominant type ✓ Trees Shrub		
		Field/P				ceous	
		Agricult					
WATERSHED FEATURES		Other:			Floodplain Width ✓ Wide > 30ft Mode	rate 15-30ft	
		Canany C	over.	Narrow <16ftaded			
		Canopy Co <u>✓</u> Partly c					
		Shaded Open			Wetland PresentYes Wetland ID	<u>✓</u> No	
		Indicate th	e dominant type and	d record the c			
AQUATIC VE	GETATION	Indicate the dominant type and record the dominant species present Rooted emergentRooted submergent Rooted floating Free floating					
·		Floating algaeAttached algae					
MACROINVERTEBRATES OR OTHER WILDLIFE		(original S-	F16A)				
OBSERVED/C							
NOTES	- -						

Stream ID S-F16A/S-F



Photograph Direction NE

Date: 04/08/2015

Comments: 2015 stream identification.



Photograph Direction SW

Date: 11/01/2019

STREAM ID S-C36	STREAM NAME UNT to Flatwoods Branch					
LAT 37.257250 LONG -80.281592	DATE 04/09/2015					
CLIENT MVP	PROJECT NAME MVP					
INVESTIGATORS L.Harloe, K.Lamontagne, L. Summers						
FLOW REGIME Perennial Intermittent February Ephemeral	WATER TYPE TNW RPW NRPW					

Perenniai —	_	nt <u> —</u> Epnem	erai INVV	RPW —	NRPW		
		Catimata I	1		Otroom Francism		
CHANNEL FEATURES		Estimate Measurements Top of Bank Width: 3.0 ft			Stream Erosion None Moderate Heavy		
		Top of Bank Width: 3.0 1			NoneNoderateneavy		
		·	•		Artificial, Modified or Channelized		
		LB <u>2.0</u>		<u>in</u>	Yes No		
		·	th: 2.00 in		Dam PresentYes <u>✓</u> No		
		Water Width: 3.0 ft					
		High Water Mark: 2.0 in			Sinuosity Low Medium High		
		Flow Direction: Southeast			Gradient		
					✓ FlatModerateSevere (2 ft/100 ft)(10 ft/100 ft)		
		· · · · · · · · · · · · · · · · · · ·			Proportion of Reach Represented by Stream		
		No water, stream bed dry			Morphology Types		
		Stream bed moist			Riffle % Run 80 %		
FLOW		Standing	-		Pool 20 %		
CHARACTER	ISTICS	<u>✓</u> Flowing	water		Turbidity		
		Velocity			<u>✓</u> ClearSlightly turbidTurbid		
		Fast Moderate			OpaqueStained		
		<u>✓</u> Slow	<u>✓</u> Slow		Other		
INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)		ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)					
Substrate Type	Diame	ter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area	
Bedrock				Detritue	sticks, wood, coarse		
Boulder	> 256 mm (10")			Detritus	plant materials (CPOM)	20	
Cobble	64-256 mm (2.5"-10")			- Muck-Mud	black, very fine organic	_	
Gravel	2-64 mm (0.1"-2.5")		20	Widok-Widd	(FPOM)	5	
Sand	0.06-2n	0.06-2mm (gritty) 40					
Silt	0.004-0.06 mm		40 Marl		grey, shell fragments		
Clay	< 0.004	mm (slick)					
WATERSHED FEATURES			ant Surrounding Lar		Indicate the dominant type (Check one)		
		✓ Forest Commerc Field/Pasture Industrial			✓ Trees Shrubs ✓ Grasses Herbaceous		
		Agricultural Residential		tial	_		
		✓ Other: Powerline corridor			Floodplain Width Wide > 30ft Moderate 15-30ft Narrow <16ft		
		Company Course					
		Canopy Cover Partly openPartly shaded					
		ShadedOpen			Wetland Present <u>v</u> YesNo Wetland IDW-C10, 11, 12		
		Indicate th	Indicate the dominant type and record the dominant species present				
AQUATIC VEGETATION		Rooted emergentRooted submergentRooted floatingFree floating					
		✓ Floating algaeAttached algae					
MACROINVERTEBRATES OR OTHER WILDLIFE OBSERVED/OTHER OBSERVATIONS AND NOTES		Flows into PEM W-C10					
		Intermittent					
		1					



Photograph Direction SSE

Date: 04/09/2015

Comments: 2015 stream identification.



Photograph Direction NNE

Date: 11/01/2019